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**IMMEDIATE RESPONSE ACTION
STATUS REPORT**

**MURPHY'S WASTE OIL SERVICE, INC.
252 SALEM STREET
WOBURN, MASSACHUSETTS**

DEP RTN #3-22144

Prepared for:

**Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, MA 01801**

Prepared by:

**Clean Harbors Environmental Services, Inc.
42 Longwater Drive
Norwell, Massachusetts 02061**

June 22, 2006

CHES Job No. MU599836

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**IMMEDIATE RESPONSE ACTION
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**MURPHY'S WASTE OIL SERVICE, INC.
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TABLE OF CONTENTS

INTRODUCTION.....	1
INCIDENT DESCRIPTION.....	1
PREVIOUS IMMEDIATE RESPONSE ACTIONS.....	2
STATUS OF IMMEDIATE RESPONSE ACTION.....	4
SCHEDULE	4

TABLES

TABLE 1	Groundwater Elevation
TABLE 2	Product Thickness

FIGURES

FIGURE 1	Locus Map
FIGURE 2	Proposed Work Plan

APPENDICES

APPENDIX A	Immediate Response Action Transmittal Form
APPENDIX B	Well Monitoring Field Data
APPENDIX C	Uniform Hazardous Waste Manifest



Clean Harbors Environmental Services, Inc.
42 Longwater Drive
Norwell, MA 02061-9149

IMMEDIATE RESPONSE ACTION STATUS REPORT

**Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts**

INTRODUCTION

This Immediate Response Action (IRA) Status Report has been prepared by Clean Harbors Environmental Services, Inc. (CHES) to document response actions relative to the presence of separate-phase oil discovered in two monitoring wells at the Murphy's Waste Oil Service, Inc. (Murphy's) facility located at 252 Salem Street in Woburn, Massachusetts (the "site"). The site is owned by Old Oil Realty Trust and is leased by Murphy's, a transfer, storage, and disposal facility for waste oil. Figure 1 shows the location of the site. An IRA Transmittal Form (BWSC-105) to accompany this Status Report is presented in Appendix A.

INCIDENT DESCRIPTION

Murphy's Waste Oil Service, Inc. holds a RCRA Part B Permit issued by the Massachusetts Department of Environmental Protection (DEP) Bureau of Waste Prevention pursuant to 310 CMR 30.000, the Hazardous Waste Regulations. Pursuant to requirements of the Part B Permit, Murphy's developed a Groundwater Monitoring Plan (GMP), dated April 8, 2002 to evaluate existing wells at the facility. The GMP included results of a comprehensive gauging event performed at the Murphy's site on November 5, 2001. Separate-phase oil was detected in three site wells, MW-7 (0.24 foot), MW-16 (0.44 foot), and MR-2SS (0.01 foot). The accumulation of separate-phase product in the wells was considered reflective of historic contamination that had been identified during previous Corrective Action Investigation performed pursuant to the Part B Permit between 1988 and 1998. These data were reported to the DEP Business Compliance Branch consistent with the manner of documenting previous investigation findings.

On August 26, 2002, the DEP Bureau of Waste Prevention issued a Notice of Noncompliance (NON) to CHES (the parent company of Murphy's) for failure to notify the DEP Bureau of Waste Site Cleanup (BWSC) of the accumulation of product greater than 1/2-inch as a new site condition. Specifically, the measured thickness of oil in wells MW-7 and MW-16 exceeded the 72-hour notification requirement for light non-aqueous phase liquid (LNAPL) accumulation greater than 1/2-inch on groundwater in a monitoring well.

Notification was made to the BWSC on September 25, 2002, and Release Tracking Number (RTN) 3-22144 was issued for the new site condition. Verbal approval was given by the BWSC to conduct an Immediate Response Action (IRA), consisting of gauging the LNAPL thickness in the wells, initially on a semi-monthly basis, and removal of LNAPL when it is encountered. The notification and approved IRA tasks were documented in an IRA Plan, dated November 22, 2002, and subsequent IRA Status Reports.

PREVIOUS IMMEDIATE RESPONSE ACTIONS

During the first gauging event on September 30, 2002, samples of LNAPL were collected from wells MW-7 and MW-16 for laboratory analysis of polychlorinated biphenyl compounds (PCBs by EPA Method 8082) and total petroleum hydrocarbon (TPH by GC/FID) to identify the petroleum type. The analytical results were presented in the IRA Plan. PCB compounds (Aroclor 1260) were detected in the oil samples from wells MW-7 and MW-16 at concentrations of 3.7 mg/kg and 19 mg/kg, respectively. The hydrocarbon products found in MW-7 and MW-16 were a close match to each other, and most closely resembled the laboratory's reference standard for lubricating oil.

During the gauging event on October 11, 2002, groundwater samples were collected from wells MW-7 and MW-16 for analysis of PCB, extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbon (VPH). The laboratory results were included in the IRA Plan. PCBs were not detected in either of the groundwater samples above the laboratory Practical Quantitation Limit (PQL) of 1 ug/l. VPHs were not detected in the sample from MW-7. However, VPHs were detected in the sample from MW-16 at a total concentration of 1,961 ug/l, and VPH target compounds were detected at a total concentration of 66 ug/l. EPHs were detected in the samples from MW-7 and MW-16 at total concentrations of 618 ug/l and 13,703 ug/l, respectively. EPH target compounds were detected in the sample from MW-16 at a total concentration of 11.6 ug/l. It is possible that the results from MW-16 were reflective of a sheen contained in the sample.

Since November 2001, wells MW-7 and MW-16 have been gauged using an electronic oil/water interface probe. When present, oil is purged from the wells after gauging using a polyethylene bailer. The recovered oil is placed in a dedicated 5-gallon container staged at the site, that is periodically disposed. During each gauging event, the wetland adjacent to MW-7 and MW-16 is checked for the possible presence of an oil sheen. On January 10, 2003, an oil sheen was observed on surface water along a five-foot length of the wetland bank adjacent to well MW-16. The new site condition was reported to the DEP, which gave verbal approval to deploy absorbent boom to contain the sheen. As part of the ongoing IRA, three 8-foot sections of 8-inch diameter absorbent boom were placed in the wetland along the bank, centered on the area where the sheen was observed. Actions to deploy and maintain the boom were documented in a previous IRA Status Report, dated February 17, 2003.

On April 23, 2003, a limited subsurface investigation was performed to further delineate the extent of NAPL in the area of MW-16. Four soil borings (MW-22 through MW-25) were advanced

surrounding MW-16, a fifth boring (MW-26) was placed adjacent to the wetland bank about 80 feet south of MW-16 to establish background conditions. Locations of the wells are shown in Figure 2. Of the five newly installed groundwater monitoring wells, only MW-24 has been observed to contain NAPL. MW-24 is located about 10 feet southeast of MW-16.

Installation of new wells MW-22 through MW-26 was documented in an IRA Status Report and Plan Modification, dated August 21, 2003. Based on the initial evaluation of the new wells, the Plan Modification proposed removal of source soils in the area of MW-16 to address NAPL on the groundwater and the intermittent sheen on water in the wetland. It was proposed that soils be removed from an area approximately 20 feet by 10 feet and up to six feet below grade (up to 50 cubic yards) using dewatering, if needed. The installation of an interceptor trench was also proposed to recover any migratory oil. Implementation of the IRA (e.g. excavation) was initially postponed due to conditions of high water table in the wetland. High water levels in the wetland raise the possibility of destabilizing the excavation walls during installation of the interceptor trench. Subsequent efforts to prepare the area for excavation were hampered when it was found that the work area is heavily overgrown with poison ivy.

In a letter dated August 23, 2004, CHES was notified by the US Environmental Protection Agency (USEPA) that the Murphy's site has been included on the Comprehensive Environmental Response Compensation Liability Information System (CERCLIS) inventory of known or potential hazardous waste disposal areas. Murphy's is one of three properties collectively known as the Southwest Properties, a USEPA-designated part of the Wells G&H Superfund Site. As a result, the site has been deferred from the RCRA Corrective Action Program and will now be regulated under CERCLA. A copy of the USEPA letter was included in the IRA Status Report, dated January 21, 2005.

Based on data previously collected at Murphy's by CHES and investigations by others of the Whitney Barrel and Aberjona Auto Parts properties, the USEPA has completed a Baseline Risk Assessment of the Southwest Properties, dated March 2004. An executive summary of the Baseline Risk Assessment was included in a letter, dated April 14, 2004, a copy of which was included in the IRA Status Report, dated January 21, 2005. At the Murphy's site, cancer and non-cancer risks were found to human receptors due to the presence of PCBs and chromium in the wetland sediments. These risks to humans were within or below federal prescribed ranges for surface water in the wetland. Potential ecological risks were found to environmental receptors due to the presence of PCBs, chromium, and lead in the wetland sediments.

Because of the risks to human receptors from the wetland sediments, future remediation of the Southwest Properties is likely. CHES has not received any further directives from the USEPA since the August 23, 2004 letter. However, it is CHES' opinion that any excavation in proximity to the wetland, such as that proposed under the IRA, should be coordinated with the USEPA. As such, CHES recommended in the IRA Status Report, dated January 21, 2005, that implementation of the proposed interceptor trench be postponed pending USEPA concurrence.

STATUS OF IMMEDIATE RESPONSE ACTION

This IRA Status Report documents response actions conducted during the reporting period through June 2006. Field data sheets for the reporting period are presented in Appendix B. Tables 1 and 2 present a summary of the gauging data. During this reporting period, the wells were gauged and purged on March 17, 2006 and June 5, 2006. The oil and water purged from the wells were placed in a labeled 5-gallon pail, which was subsequently removed from the site and disposed on June 12, 2006. A copy of the Uniform Hazardous Waste Manifest for the disposal of the liquids is presented in Appendix C.

During the reporting period, product accumulations were observed in wells MW-7 (up to 1.80 feet), MW-24 (up to 0.06 feet), and MW-16 (up to 0.21 feet). No sheen was observed on surface water in the wetland during the March site visit. However, a slight sheen was observed during the June event, when the boom was replaced.

Because of the presence of separate-phase product in the monitoring wells at a thickness greater than ½-inch, the ongoing IRA will consist of periodic gauging/purging of the affected wells and inspection of surface water in the wetland.

SCHEDULE

It is anticipated that the affected wells will be gauged and purged on a quarterly basis. During site visits, surface water in the wetland will be inspected.

Status Reports will be forwarded to the DEP on a semi-annual basis to document ongoing efforts made under the IRA.

Copies of this IRA Status Report are being submitted to the DEP Bureau of Waste Prevention, Bureau of Waste Site Cleanup, and the USEPA CERCLA Program.

1

TABLES

1

TABLE 1
GROUNDWATER ELEVATION

Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts

Date	MW-7	MW-16	MW-22	MW-23	MW-24	MW-25	MW-26
11/5/2001	44.5	43.13	---	---	---	---	---
9/30/2002	45.36	43.59	---	---	---	---	---
10/11/2002	45.12	43.78	---	---	---	---	---
10/31/2002	45.47	44.21	---	---	---	---	---
11/8/2002	45.58	44.31	---	---	---	---	---
12/2/2002	45.88	44.32	---	---	---	---	---
12/18/2002	46.85	45.17	---	---	---	---	---
1/10/2003	---	45.05	---	---	---	---	---
1/13/2003	46.71	44.98	---	---	---	---	---
2/14/2003	46.50	45.41	---	---	---	---	---
4/9/2003	43.75	45.35	---	---	---	---	---
5/5/2003	45.72	44.81	---	---	---	---	---
5/12/2003	---	---	44.78	44.78	44.78	44.82	44.81
6/4/2003	46.04	45.20	45.93	45.13	45.11	45.17	46.02
7/2/2003	45.15	44.32	44.46	44.47	44.18	44.56	44.64
8/18/2003	44.81	44.49	44.72	44.65	44.61	44.76	44.80
10/2/2003	43.78	43.57	43.57	43.67	43.7	43.77	43.97
2/3/2004	44.19	43.75	43.70	43.72	43.86	43.81	44.30
7/8/2004	---	43.36	43.24	43.17	43.26	44.63	43.47
4/12/2005	45.98	45.35	45.11	45.14	45.32	45.27	45.19
8/10/2005	43.42	43.06	42.90	42.91	43.13	43.29	43.26
3/17/2006	44.87	44.46	44.73	44.54	44.64	44.73	44.78
6/5/2006	46.49	45.56	45.22	45.38	45.64	45.43	45.35

Notes:

1. Water elevations in feet, corrected for oil thickness.

TABLE 2
PRODUCT THICKNESS

Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts

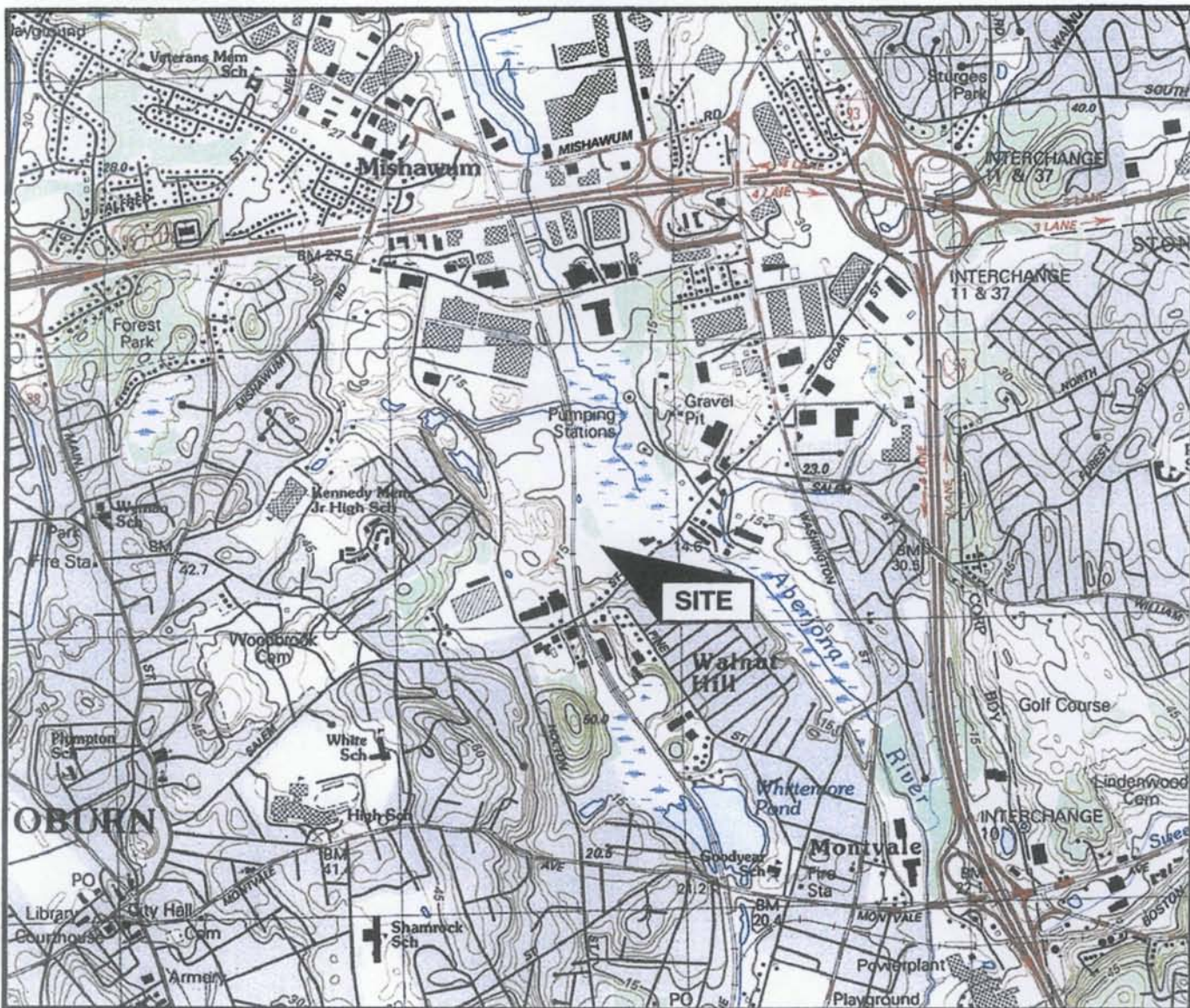
Date	MW-7	MW-16	MW-22	MW-23	MW-24	MW-25	MW-26
11/5/2001	0.24	0.44	---	---	---	---	---
9/30/2002	0.59	0.35	---	---	---	---	---
10/11/2002	0.01	0.40	---	---	---	---	---
10/31/2002	0.02	0.33	---	---	---	---	---
11/8/2002	0.00	0.21	---	---	---	---	---
12/2/2002	0.00	0.02	---	---	---	---	---
12/18/2002	0.00	0.00	---	---	---	---	---
1/10/2003	---	0.00	---	---	---	---	---
1/13/2003	0.00	0.00	---	---	---	---	---
2/24/2003	0.00	0.00	---	---	---	---	---
4/9/2003	0.00	0.00	---	---	---	---	---
5/5/2003	0.00	0.00	---	---	---	---	---
5/12/2003	---	---	0.00	0.00	0.87	0.00	0.00
6/4/2003	0.00	0.00	0.00	0.00	0.91	0.00	0.00
7/2/2003	0.00	0.00	0.00	0.00	2.00	0.00	0.00
8/18/2003	0.01	0.56	0.00	0.00	0.91	0.00	0.00
10/2/2003	0.05	0.55	0.00	0.00	1.03	0.00	0.00
2/3/2004	0.00	0.46	0.00	0.00	0.30	0.00	0.00
7/8/2004	---	0.57	0.00	0.00	2.70	0.00	0.00
4/12/2005	0.00	0.67	0.00	0.00	0.23	0.00	0.00
8/10/2005	0.12	1.14	0.00	0.00	2.62	0.00	0.00
3/17/2006	1.80	0.01	0.00	0.00	0.06	0.00	0.00
6/5/2006	0.00	0.21	0.00	0.00	0.06	0.00	0.00

Notes:

1. Product thickness in feet.

1

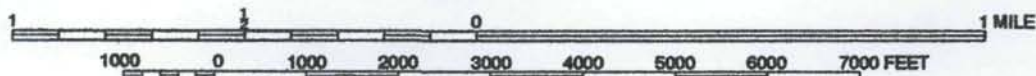
FIGURES



QUADRANGLE LOCATION



SCALE 1:24 000



CONTOUR INTERVAL 3 METERS
ELEVATION REFERENCE IS NATIONAL GEODETIC VERTICAL DATUM OF 1929
COORDINATE REFERENCE IS NORTH AMERICAN DATUM OF 1927

COORDINATES

UTM: 4,706,254 mN 324,682 mE

LONGITUDE: W 71° 08' 00"

LATITUDE: N 42° 29' 27"

A

PRELIMINARY

CJM

CJM

CJM

11/05

ISSUE

DESCRIPTION

DRWN

CHKD

APPR

DATE

BASE MAP: USGS TOPOGRAPHIC MAP PRINTED FROM TOPO! © 1998 WILDFLOWER PRODUCTIONS

CleanHarbors
Environmental Services®

1501 WASHINGTON STREET
BRAINTREE, MASSACHUSETTS 02184
(781) 849-1800

MURPHY'S WASTE OIL SERVICE, INC.
252 Salem Street
Woburn, Massachusetts

LOCUS MAP

JOB NO.: MU599836

DWG. NO.

SCALE: AS SHOWN

FIGURE 1



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM**

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

- 22144

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: **MURPHYS OIL WASTE**
2. Street Address: **252 SALEM ST**
3. City/Town: **WOBURN** 4. ZIP Code: _____
5. UTM Coordinates: a. UTM N: **4706254** b. UTM E: **324682**
- ☐ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
☐ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☐ d. Tier II
- ☐ 7. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):
☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management
☒ d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): _____
(mm/dd/yyyy)
- ☐ 2. Submit an **Initial IRA Plan**.
- ☐ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.
- ☐ 4. Submit an **Imminent Hazard Evaluation**. (check one)
☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.
☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.
☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.
☐ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.
- ☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.
- ☒ 6. Submit an **IRA Status Report**.
- ☐ 7. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)
a. Type of Report: (check one) ☐ i. Initial Report ☐ ii. Interim Report ☐ iii. Final Report
b. Frequency of Submittal: (check all that apply)
☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.
☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.
☐ iii. A Remedial Monitoring Report(s) submitted concurrent with a IRA Status Report.
c. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 8. Submit an **IRA Completion Statement**.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN):

-

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 9. Submit a **Revised IRA Completion Statement**.

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☒ d. Groundwater ☐ e. Residence
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☐ j. Sediments
☐ k. Soil ☐ l. Storm Drain ☒ m. Surface Water ☐ n. Unknown ☒ o. Wetland ☐ p. Zone 2
☒ q. Others Specify: **greater than 1/2-inch LNAPL on groundwater in monitoring well**

2. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☒ a. Oils ☐ b. Chlorinated Solvents ☐ c. Heavy Metals
☐ d. Others Specify:

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- | | |
|---|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input checked="" type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input checked="" type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

D. DESCRIPTION OF RESPONSE ACTIONS (cont): (check all that apply, for volumes list cumulative amounts)

☐ 13. Excavation of Contaminated Soils

☐ a. Re-use, Recycling or Treatment

☐ i. On Site Estimated volume in cubic yards

☐ ii. Off Site Estimated volume in cubic yards

ii.a. Receiving Facility: Town: State:

ii.b. Receiving Facility: Town: State:

iii. Describe:

☐ b. Store

☐ i. On Site Estimated volume in cubic yards

☐ ii. Off Site Estimated volume in cubic yards

ii.a. Receiving Facility: Town: State:

ii.b. Receiving Facility: Town: State:

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards

Receiving Facility: Town: State:

☐ ii. Disposal Estimated volume in cubic yards

Receiving Facility: Town: State:

☐ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount:

b. Receiving Facility: Town: State:

c. Receiving Facility: Town: State:

☒ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: 10 gallons oil

b. Receiving Facility: Clean Harbors of Braintree Town: Braintree State: MA

c. Receiving Facility: Town: State:

☐ 16. Other Response Actions:

Describe:

☐ 17. Use of Innovative Technologies:

Describe:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 3497

2. First Name: DANA A

3. Last Name: SIMPSON

4. Telephone: (781) 792-5824

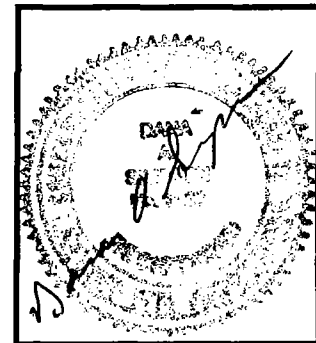
5. Ext.:

6. FAX:

7. Signature: Dana A Simpson

8. Date: 06/26/2006
(mm/dd/yyyy)

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

F. PERSON UNDERTAKING IRA:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: **MURPHYS WASTE OIL SERVICE INC**
3. Contact First Name: **WILLIAM** 4. Last Name: **CONNORS**
5. Street: **42 Longwater Drive** 6. Title: **VP**
7. City/Town: **Norwell** 8. State: **MA** 9. ZIP Code: **02061-9149**
10. Telephone: **(781) 792-5169** 11. Ext.: 12. FAX: **(781) 792-5900**

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

- ☒ 1. RP or PRP ☐ a. Owner ☒ b. Operator ☐ c. Generator ☐ d. Transporter
☐ e. Other RP or PRP Specify:
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking IRA Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
☐ a. A Release Abatement Measure (RAM) Plan (BWSC106) ☐ b. Phase IV Remedy Implementation Plan (BWSC108)
- ☒ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3	-	22144
---	---	-------

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, **William F. Connors**, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: Will F Connor Signature

3. Title: **VP**

4. For: **MURPHYS WASTE OIL SERVICE INC**

5. Date: _____
(mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street:

8. City/Town:

9. State:

10. ZIP Code:


11. Telephone:

12. Ext.:

13. FAX:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)





APPENDIX B

WELL MONITORING FIELD DATA

Murphy's Waste Oil Facility
252 Salem Street
Woburn, Massachusetts

Date: 3-17-06
CHES Rep: L. Irwin

MU599836

Location	Well Depth	Reference Elevation	Depth to Oil	Depth to Water	Total Thickness	Water Elevation	Purged (gals.)	Comments: Adjacent Wetland Insp. presence/sheen	Regauge
MW-7	12	50.89	6.25	8.05	1.80	44.87	2	Water present in wetland;	8.03
MW-16	12	50.24	5.78	5.80	0.01	44.46	0.5	no sheens in the wetland	5.80
MW-22	8	50.00		5.27		44.73	X	"	X
MW-23	8	49.17		4.63		44.54	X	"	X
MW-24	8	49.30	4.67	4.73	0.06	44.64	0.5	"	4.72
MW-25	8	49.84		5.11		44.73	X	"	X
MW-26	8	50.11		5.33		44.78	X	"	X

1. Well reference elevations determined at top of PVC well rim.
2. Water elevations corrected for oil thickness using a specific gravity of 0.87 for oil.

WELL MONITORING FIELD DATA

Murphy's Waste Oil Facility
252 Salem Street
Woburn, Massachusetts

Date: 6-5-06
CHES Rep: L. Irwin & R. Chason

MUGENERIC

Location	Well Depth	Reference Elevation	Depth to Oil	Depth to Water	Total Thickness	Water Elevation	Purged (gals.)	Comments: Adjacent Wetland Insp. presence/sheen	Regauge
MW-7	12	50.89	**	4.40	0.00	46.49	0.1	No sheen; Water present; broken plug	4.41
MW-16	12	50.24	4.65	4.86	0.21	45.56	0.2	**Sheen detected in Wetland,	4.90
MW-22	8	50.00	**	4.78	0.00	45.22	0.0	old boom was removed and	4.78
MW-23	8	49.17	**	3.79	0.00	45.38	0.0	three new sections of boom installed.	3.79
MW-24	8	49.30	3.65	3.71	0.06	45.64	0.1		3.72
MW-25	8	49.84	**	4.41	0.00	45.43	0.0		4.41
MW-26	8	50.11	**	4.76	0.00	45.35	0.0		4.76
MR-2SS	**	**	**	**	0.00	**	**	MR-2SS is destroyed/ out of service	

1. Well reference elevations determined at top of PVC well rim.
2. Water elevations corrected for oil thickness using a specific gravity of 0.87 for oil.



APPENDIX C



MU599836

PPW 04/24/2006

UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No.		Manifest Document No.											
		M A D 0 6 6 5 8 8 0 0 5		68588											
3. Generator's Name and Mailing Address Murphys Waste Oil Services Inc 252 Salem Street Woburn, MA 01801				2. Page 1 of 1											
4. Generator's Phone # 800-522-4645				A. State Manifest Document Number MA U 191518											
5. Transporter 1 Company Name Clean Harbors Env Services Inc				B. State Gen ID SAME											
6. Transporter 1 US EPA ID Number MAD039322250				C. State Trans ID MA 1336											
7. Transporter 2 Company Name				D. Transporter's Phone # 781-849-1800											
8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA, 02184				E. State Trans ID											
9. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) A-HAZARDOUS WASTE, LIQUID, N.O.S., (LEAD, CHROMIUM), 9, NA3082, PG III				F. Transporter's Phone # 781-849-1807											
				G. State Facility ID NOT REQUIRED											
				H. Facility's Phone # 781-849-1807											
				I. Containers											
				<table border="1" style="width: 100%;"> <thead> <tr> <th>No.</th> <th>Type</th> <th>Total Gross Wt.</th> <th>Net Wt.</th> <th>Hazardous</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>DF</td> <td>005 G</td> <td></td> <td>D004 D005 D008 D007 D008 DQ10</td> </tr> </tbody> </table>		No.	Type	Total Gross Wt.	Net Wt.	Hazardous	001	DF	005 G		D004 D005 D008 D007 D008 DQ10
No.	Type	Total Gross Wt.	Net Wt.	Hazardous											
001	DF	005 G		D004 D005 D008 D007 D008 DQ10											
J. Additional Descriptions for Materials Listed Above (include physical state and hazard class) ERG#171 (L),(E)				K. Handling Codes for Wastes Listed Above											
a.				a.											
b.				b.											
c.				c.											
d.				d.											
15. Special Handling Instructions and Additional Information: 11a: CH100350 D039 EMERGENCY PHONE #: (800) 483-3718															
16. GENERATOR'S CERTIFICATION: I hereby declare that the material in this consignment are fully identified as such by their proper shipping name and are classified, labeled, packaged, and are in all respects in compliance with applicable federal, state, and local laws, regulations, and executive orders. If I am a large quantity generator, I certify that I have a program in place to reduce the volume of hazardous waste generated in my facility, and that I have selected the treatment, storage, or disposal method currently available which minimizes the potential for harm to man and the environment. If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and used the best practicable management method that is available to me and that is justified.															
Printed/Typed Name Jacqueline Cascarano		Signature <i>[Signature]</i>		Date 06/12/06											
17. Transporter 1 Acknowledgment of Receipt of Materials Printed/Typed Name Charles Valentine		Signature <i>[Signature]</i>		Date 06/12/06											
18. Transporter 2 Acknowledgment of Receipt of Materials Printed/Typed Name Jacqueline Cascarano		Signature <i>[Signature]</i>		Date 06/12/06											
19. Discrepancy Indication Space															
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.															

MA U 191518 COPY>: FACILITY MAI LS TO DESTINATION STATE

**IMMEDIATE RESPONSE ACTION
STATUS REPORT**

**MURPHY'S WASTE OIL SERVICE, INC.
252 SALEM STREET
WOBURN, MASSACHUSETTS**

DEP RTN #3-22144



**IMMEDIATE RESPONSE ACTION
STATUS REPORT**

**MURPHY'S WASTE OIL SERVICE, INC.
252 SALEM STREET
WOBURN, MASSACHUSETTS
DEP RTN #3-22144**

Prepared for:

**Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, MA 01801**

Prepared by:

**Clean Harbors Environmental Services, Inc.
42 Longwater Drive
Norwell, Massachusetts 02061**

June 22, 2006

CHES Job No. MU599836



**Dana A. Simpson, LSP
Manager, Remedial Investigations**



**Charles J. McCreery, CPG, LSP
Senior Project Manager**

**IMMEDIATE RESPONSE ACTION
STATUS REPORT**

**MURPHY'S WASTE OIL SERVICE, INC.
252 SALEM STREET
WOBURN, MASSACHUSETTS
DEP RTN #3-22144**

TABLE OF CONTENTS

INTRODUCTION.....	1
INCIDENT DESCRIPTION.....	1
PREVIOUS IMMEDIATE RESPONSE ACTIONS	2
STATUS OF IMMEDIATE RESPONSE ACTION.....	4
SCHEDULE	4

TABLES

TABLE 1	Groundwater Elevation
TABLE 2	Product Thickness

FIGURES

FIGURE 1	Locus Map
FIGURE 2	Proposed Work Plan

APPENDICES

APPENDIX A	Immediate Response Action Transmittal Form
APPENDIX B	Well Monitoring Field Data
APPENDIX C	Uniform Hazardous Waste Manifest



Clean Harbors Environmental Services, Inc.
42 Longwater Drive
Norwell, MA 02061-9149

IMMEDIATE RESPONSE ACTION STATUS REPORT

**Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts**

INTRODUCTION

This Immediate Response Action (IRA) Status Report has been prepared by Clean Harbors Environmental Services, Inc. (CHES) to document response actions relative to the presence of separate-phase oil discovered in two monitoring wells at the Murphy's Waste Oil Service, Inc. (Murphy's) facility located at 252 Salem Street in Woburn, Massachusetts (the "site"). The site is owned by Old Oil Realty Trust and is leased by Murphy's, a transfer, storage, and disposal facility for waste oil. Figure 1 shows the location of the site. An IRA Transmittal Form (BWSC-105) to accompany this Status Report is presented in Appendix A.

INCIDENT DESCRIPTION

Murphy's Waste Oil Service, Inc. holds a RCRA Part B Permit issued by the Massachusetts Department of Environmental Protection (DEP) Bureau of Waste Prevention pursuant to 310 CMR 30.000, the Hazardous Waste Regulations. Pursuant to requirements of the Part B Permit, Murphy's developed a Groundwater Monitoring Plan (GMP), dated April 8, 2002 to evaluate existing wells at the facility. The GMP included results of a comprehensive gauging event performed at the Murphy's site on November 5, 2001. Separate-phase oil was detected in three site wells, MW-7 (0.24 foot), MW-16 (0.44 foot), and MR-2SS (0.01 foot). The accumulation of separate-phase product in the wells was considered reflective of historic contamination that had been identified during previous Corrective Action Investigation performed pursuant to the Part B Permit between 1988 and 1998. These data were reported to the DEP Business Compliance Branch consistent with the manner of documenting previous investigation findings.

On August 26, 2002, the DEP Bureau of Waste Prevention issued a Notice of Noncompliance (NON) to CHES (the parent company of Murphy's) for failure to notify the DEP Bureau of Waste Site Cleanup (BWSC) of the accumulation of product greater than ½-inch as a new site condition. Specifically, the measured thickness of oil in wells MW-7 and MW-16 exceeded the 72-hour notification requirement for light non-aqueous phase liquid (LNAPL) accumulation greater than ½-inch on groundwater in a monitoring well.

Notification was made to the BWSC on September 25, 2002, and Release Tracking Number (RTN) 3-22144 was issued for the new site condition. Verbal approval was given by the BWSC to conduct an Immediate Response Action (IRA), consisting of gauging the LNAPL thickness in the wells, initially on a semi-monthly basis, and removal of LNAPL when it is encountered. The notification and approved IRA tasks were documented in an IRA Plan, dated November 22, 2002, and subsequent IRA Status Reports.

PREVIOUS IMMEDIATE RESPONSE ACTIONS

During the first gauging event on September 30, 2002, samples of LNAPL were collected from wells MW-7 and MW-16 for laboratory analysis of polychlorinated biphenyl compounds (PCBs by EPA Method 8082) and total petroleum hydrocarbon (TPH by GC/FID) to identify the petroleum type. The analytical results were presented in the IRA Plan. PCB compounds (Aroclor 1260) were detected in the oil samples from wells MW-7 and MW-16 at concentrations of 3.7 mg/kg and 19 mg/kg, respectively. The hydrocarbon products found in MW-7 and MW-16 were a close match to each other, and most closely resembled the laboratory's reference standard for lubricating oil.

During the gauging event on October 11, 2002, groundwater samples were collected from wells MW-7 and MW-16 for analysis of PCB, extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbon (VPH). The laboratory results were included in the IRA Plan. PCBs were not detected in either of the groundwater samples above the laboratory Practical Quantitation Limit (PQL) of 1 ug/l. VPHs were not detected in the sample from MW-7. However, VPHs were detected in the sample from MW-16 at a total concentration of 1,961 ug/l, and VPH target compounds were detected at a total concentration of 66 ug/l. EPHs were detected in the samples from MW-7 and MW-16 at total concentrations of 618 ug/l and 13,703 ug/l, respectively. EPH target compounds were detected in the sample from MW-16 at a total concentration of 11.6 ug/l. It is possible that the results from MW-16 were reflective of a sheen contained in the sample.

Since November 2001, wells MW-7 and MW-16 have been gauged using an electronic oil/water interface probe. When present, oil is purged from the wells after gauging using a polyethylene bailer. The recovered oil is placed in a dedicated 5-gallon container staged at the site, that is periodically disposed. During each gauging event, the wetland adjacent to MW-7 and MW-16 is checked for the possible presence of an oil sheen. On January 10, 2003, an oil sheen was observed on surface water along a five-foot length of the wetland bank adjacent to well MW-16. The new site condition was reported to the DEP, which gave verbal approval to deploy absorbent boom to contain the sheen. As part of the ongoing IRA, three 8-foot sections of 8-inch diameter absorbent boom were placed in the wetland along the bank, centered on the area where the sheen was observed. Actions to deploy and maintain the boom were documented in a previous IRA Status Report, dated February 17, 2003.

On April 23, 2003, a limited subsurface investigation was performed to further delineate the extent of NAPL in the area of MW-16. Four soil borings (MW-22 through MW-25) were advanced

surrounding MW-16, a fifth boring (MW-26) was placed adjacent to the wetland bank about 80 feet south of MW-16 to establish background conditions. Locations of the wells are shown in Figure 2. Of the five newly installed groundwater monitoring wells, only MW-24 has been observed to contain NAPL. MW-24 is located about 10 feet southeast of MW-16.

Installation of new wells MW-22 through MW-26 was documented in an IRA Status Report and Plan Modification, dated August 21, 2003. Based on the initial evaluation of the new wells, the Plan Modification proposed removal of source soils in the area of MW-16 to address NAPL on the groundwater and the intermittent sheen on water in the wetland. It was proposed that soils be removed from an area approximately 20 feet by 10 feet and up to six feet below grade (up to 50 cubic yards) using dewatering, if needed. The installation of an interceptor trench was also proposed to recover any migratory oil. Implementation of the IRA (e.g. excavation) was initially postponed due to conditions of high water table in the wetland. High water levels in the wetland raise the possibility of destabilizing the excavation walls during installation of the interceptor trench. Subsequent efforts to prepare the area for excavation were hampered when it was found that the work area is heavily overgrown with poison ivy.

In a letter dated August 23, 2004, CHES was notified by the US Environmental Protection Agency (USEPA) that the Murphy's site has been included on the Comprehensive Environmental Response Compensation Liability Information System (CERCLIS) inventory of known or potential hazardous waste disposal areas. Murphy's is one of three properties collectively known as the Southwest Properties, a USEPA-designated part of the Wells G&H Superfund Site. As a result, the site has been deferred from the RCRA Corrective Action Program and will now be regulated under CERCLA. A copy of the USEPA letter was included in the IRA Status Report, dated January 21, 2005.

Based on data previously collected at Murphy's by CHES and investigations by others of the Whitney Barrel and Aberjona Auto Parts properties, the USEPA has completed a Baseline Risk Assessment of the Southwest Properties, dated March 2004. An executive summary of the Baseline Risk Assessment was included in a letter, dated April 14, 2004, a copy of which was included in the IRA Status Report, dated January 21, 2005. At the Murphy's site, cancer and non-cancer risks were found to human receptors due to the presence of PCBs and chromium in the wetland sediments. These risks to humans were within or below federal prescribed ranges for surface water in the wetland. Potential ecological risks were found to environmental receptors due to the presence of PCBs, chromium, and lead in the wetland sediments.

Because of the risks to human receptors from the wetland sediments, future remediation of the Southwest Properties is likely. CHES has not received any further directives from the USEPA since the August 23, 2004 letter. However, it is CHES' opinion that any excavation in proximity to the wetland, such as that proposed under the IRA, should be coordinated with the USEPA. As such, CHES recommended in the IRA Status Report, dated January 21, 2005, that implementation of the proposed interceptor trench be postponed pending USEPA concurrence.

STATUS OF IMMEDIATE RESPONSE ACTION

This IRA Status Report documents response actions conducted during the reporting period through June 2006. Field data sheets for the reporting period are presented in Appendix B. Tables 1 and 2 present a summary of the gauging data. During this reporting period, the wells were gauged and purged on March 17, 2006 and June 5, 2006. The oil and water purged from the wells were placed in a labeled 5-gallon pail, which was subsequently removed from the site and disposed on June 12, 2006. A copy of the Uniform Hazardous Waste Manifest for the disposal of the liquids is presented in Appendix C.

During the reporting period, product accumulations were observed in wells MW-7 (up to 1.80 feet), MW-24 (up to 0.06 feet), and MW-16 (up to 0.21 feet). No sheen was observed on surface water in the wetland during the March site visit. However, a slight sheen was observed during the June event, when the boom was replaced.

Because of the presence of separate-phase product in the monitoring wells at a thickness greater than 1/2-inch, the ongoing IRA will consist of periodic gauging/purging of the affected wells and inspection of surface water in the wetland.

SCHEDULE

It is anticipated that the affected wells will be gauged and purged on a quarterly basis. During site visits, surface water in the wetland will be inspected.

Status Reports will be forwarded to the DEP on a semi-annual basis to document ongoing efforts made under the IRA.

Copies of this IRA Status Report are being submitted to the DEP Bureau of Waste Prevention, Bureau of Waste Site Cleanup, and the USEPA CERCLA Program.

TABLE 1
GROUNDWATER ELEVATION

Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts

Date	MW-7	MW-16	MW-22	MW-23	MW-24	MW-25	MW-26
11/5/2001	44.5	43.13	---	---	---	---	---
9/30/2002	45.36	43.59	---	---	---	---	---
10/11/2002	45.12	43.78	---	---	---	---	---
10/31/2002	45.47	44.21	---	---	---	---	---
11/8/2002	45.58	44.31	---	---	---	---	---
12/2/2002	45.88	44.32	---	---	---	---	---
12/18/2002	46.85	45.17	---	---	---	---	---
1/10/2003	---	45.05	---	---	---	---	---
1/13/2003	46.71	44.98	---	---	---	---	---
2/14/2003	46.50	45.41	---	---	---	---	---
4/9/2003	43.75	45.35	---	---	---	---	---
5/5/2003	45.72	44.81	---	---	---	---	---
5/12/2003	---	---	44.78	44.78	44.78	44.82	44.81
6/4/2003	46.04	45.20	45.93	45.13	45.11	45.17	46.02
7/2/2003	45.15	44.32	44.46	44.47	44.18	44.56	44.64
8/18/2003	44.81	44.49	44.72	44.65	44.61	44.76	44.80
10/2/2003	43.78	43.57	43.57	43.67	43.7	43.77	43.97
2/3/2004	44.19	43.75	43.70	43.72	43.86	43.81	44.30
7/8/2004	---	43.36	43.24	43.17	43.26	44.63	43.47
4/12/2005	45.98	45.35	45.11	45.14	45.32	45.27	45.19
8/10/2005	43.42	43.06	42.90	42.91	43.13	43.29	43.26
3/17/2006	44.87	44.46	44.73	44.54	44.64	44.73	44.78
6/5/2006	46.49	45.56	45.22	45.38	45.64	45.43	45.35

Notes:

1. Water elevations in feet, corrected for oil thickness.

TABLE 2
PRODUCT THICKNESS

Murphy's Waste Oil Service, Inc.
252 Salem Street
Woburn, Massachusetts

Date	MW-7	MW-16	MW-22	MW-23	MW-24	MW-25	MW-26
11/5/2001	0.24	0.44	---	---	---	---	---
9/30/2002	0.59	0.35	---	---	---	---	---
10/11/2002	0.01	0.40	---	---	---	---	---
10/31/2002	0.02	0.33	---	---	---	---	---
11/8/2002	0.00	0.21	---	---	---	---	---
12/2/2002	0.00	0.02	---	---	---	---	---
12/18/2002	0.00	0.00	---	---	---	---	---
1/10/2003	---	0.00	---	---	---	---	---
1/13/2003	0.00	0.00	---	---	---	---	---
2/24/2003	0.00	0.00	---	---	---	---	---
4/9/2003	0.00	0.00	---	---	---	---	---
5/5/2003	0.00	0.00	---	---	---	---	---
5/12/2003	---	---	0.00	0.00	0.87	0.00	0.00
6/4/2003	0.00	0.00	0.00	0.00	0.91	0.00	0.00
7/2/2003	0.00	0.00	0.00	0.00	2.00	0.00	0.00
8/18/2003	0.01	0.56	0.00	0.00	0.91	0.00	0.00
10/2/2003	0.05	0.55	0.00	0.00	1.03	0.00	0.00
2/3/2004	0.00	0.46	0.00	0.00	0.30	0.00	0.00
7/8/2004	---	0.57	0.00	0.00	2.70	0.00	0.00
4/12/2005	0.00	0.67	0.00	0.00	0.23	0.00	0.00
8/10/2005	0.12	1.14	0.00	0.00	2.62	0.00	0.00
3/17/2006	1.80	0.01	0.00	0.00	0.06	0.00	0.00
6/5/2006	0.00	0.21	0.00	0.00	0.06	0.00	0.00

Notes:

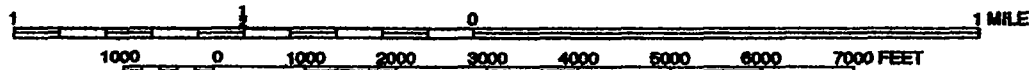
1. Product thickness in feet.



QUADRANGLE LOCATION



SCALE 1:24,000



CONTOUR INTERVAL 3 METERS
ELEVATION REFERENCE IS NATIONAL GEODETIC VERTICAL DATUM OF 1929
COORDINATE REFERENCE IS NORTH AMERICAN DATUM OF 1927

COORDINATES

UTM: 4,706,254 mN 324,682 mE
LONGITUDE: W 71° 08' 00"
LATITUDE: N 42° 29' 27"

A

PRELIMINARY

CJM

CJM

CJM

11/05

ISSUE

DESCRIPTION

DRWN

CHKD

APPR

DATE

BASE MAP: USGS TOPOGRAPHIC MAP PRINTED FROM TOPO! © 1998 WILDFLOWER PRODUCTIONS

Clean Harbors

Environmental Services®

1501 WASHINGTON STREET
BRAINTREE, MASSACHUSETTS 02184
(781) 849-1800

MURPHY'S WASTE OIL SERVICE, INC.
252 Salem Street
Woburn, Massachusetts

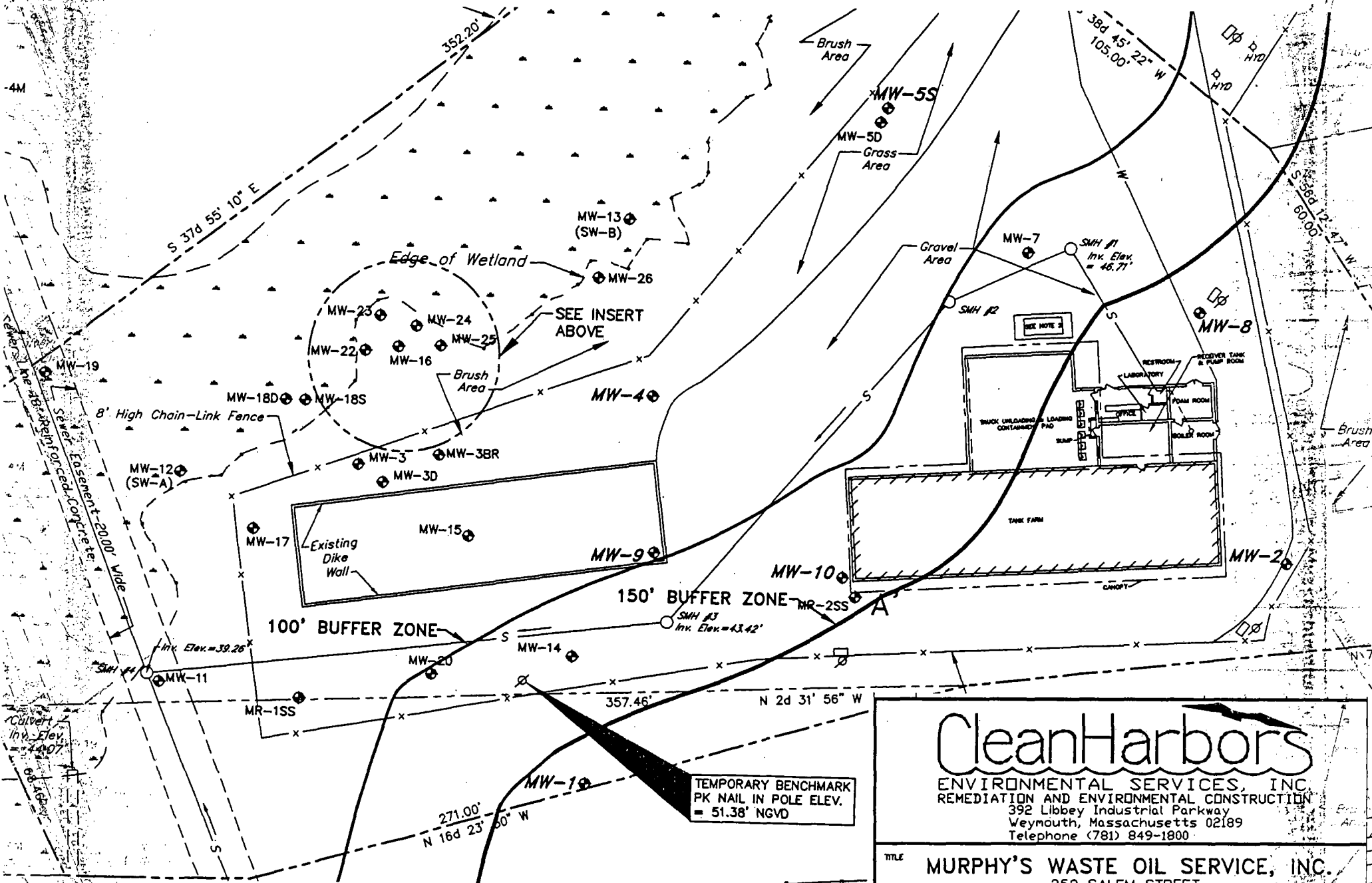
LOCUS MAP

JOB NO.: MU599836

SCALE: AS SHOWN

DWG. NO.

FIGURE 1

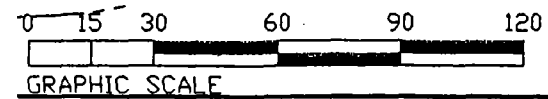


CleanHarbors

ENVIRONMENTAL SERVICES, INC.
 REMEDIATION AND ENVIRONMENTAL CONSTRUCTION
 392 Libbey Industrial Parkway
 Weymouth, Massachusetts 02189
 Telephone (781) 849-1800

TITLE
MURPHY'S WASTE OIL SERVICE, INC.
 252 SALEM STREET
 WOBURN, MASSACHUSETTS 01801

PROPOSED WORK PLAN



PROJECT NO. EN183186
 SCALE 1"=30'

DRAWING NO.
170-C-34



IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: **MURPHYS OIL WASTE**
2. Street Address: **252 SALEM ST**
3. City/Town: **WOBURN**
4. ZIP Code:
5. UTM Coordinates:
 - a. UTM N: **4706254**
 - b. UTM E: **324682**
- ☐ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
 - ☐ a. Tier IA
 - ☐ b. Tier IB
 - ☐ c. Tier IC
 - ☐ d. Tier II
- ☐ 7. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):
 - ☐ a. CERCLA
 - ☐ b. HSWA Corrective Action
 - ☐ c. Solid Waste Management
 - ☒ d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted):
(mm/dd/yyyy)
- ☐ 2. Submit an Initial IRA Plan.
- ☐ 3. Submit a Modified IRA Plan of a previously submitted written IRA Plan.
- ☐ 4. Submit an Imminent Hazard Evaluation. (check one)
 - ☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.
 - ☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.
 - ☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.
 - ☐ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.
- ☐ 5. Submit a request to Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard.
- ☒ 6. Submit an IRA Status Report.
- ☐ 7. Submit a Remedial Monitoring Report. (This report can only be submitted through eDEP.)
 - a. Type of Report: (check one)
 - ☐ i. Initial Report
 - ☐ ii. Interim Report
 - ☐ iii. Final Report
 - b. Frequency of Submittal: (check all that apply)
 - ☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.
 - ☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.
 - ☐ iii. A Remedial Monitoring Report(s) submitted concurrent with a IRA Status Report.
 - c. Number of Remedial Systems and/or Monitoring Programs:

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 8. Submit an IRA Completion Statement.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN):

-

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 9. Submit a Revised IRA Completion Statement.

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☒ d. Groundwater ☐ e. Residence
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☐ j. Sediments
☐ k. Soil ☐ l. Storm Drain ☒ m. Surface Water ☐ n. Unknown ☒ o. Wetland ☐ p. Zone 2
☒ q. Others Specify: **greater than 1/2-inch LNAPL on groundwater in monitoring well**

2. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☒ a. Oils ☐ b. Chlorinated Solvents ☐ c. Heavy Metals
☐ d. Others Specify:

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- | | |
|---|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input checked="" type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input checked="" type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |



Massachusetts Department of Environmental Protection
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BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 22144

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ 13. Excavation of Contaminated Soils

☐ a. Re-use, Recycling or Treatment

☐ i. On Site Estimated volume in cubic yards

☐ ii. Off Site Estimated volume in cubic yards

ii.a. Receiving Facility: Town: State:

ii.b. Receiving Facility: Town: State:

iii. Describe:

☐ b. Store

☐ i. On Site Estimated volume in cubic yards

☐ ii. Off Site Estimated volume in cubic yards

ii.a. Receiving Facility: Town: State:

ii.b. Receiving Facility: Town: State:

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards

Receiving Facility: Town: State:

☐ ii. Disposal Estimated volume in cubic yards

Receiving Facility: Town: State:

☐ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount:

b. Receiving Facility: Town: State:

c. Receiving Facility: Town: State:

☒ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: 10 gallons oil

b. Receiving Facility: Clean Harbors of Braintree Town: Braintree State: MA

c. Receiving Facility: Town: State:

☐ 16. Other Response Actions:

Describe:

☐ 17. Use of Innovative Technologies:

Describe:



**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
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Release Tracking Number

3 - 22144

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a **request to Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 3497

2. First Name: DANA A

3. Last Name: SIMPSON

4. Telephone: (781) 792-5824

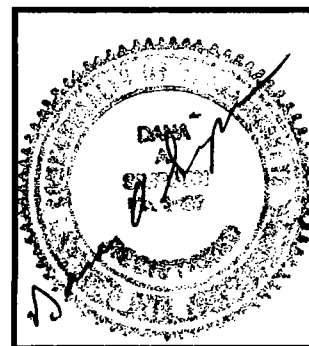
5. Ext.:

6. FAX:

7. Signature: Dana A Simpson

8. Date: 06/26/2006
(mm/dd/yyyy)

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

22144

F. PERSON UNDERTAKING IRA:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: **MURPHYS WASTE OIL SERVICE INC**
3. Contact First Name: **WILLIAM** 4. Last Name: **CONNORS**
5. Street: **42 Longwater Drive** 6. Title: **VP**
7. City/Town: **Norwell** 8. State: **MA** 9. ZIP Code: **02061-9149**
10. Telephone: **(781) 792-5169** 11. Ext.: 12. FAX: **(781) 792-5900**

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

- ☒ 1. RP or PRP ☐ a. Owner ☒ b. Operator ☐ c. Generator ☐ d. Transporter
☐ e. Other RP or PRP Specify:
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking IRA Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
☐ a. A Release Abatement Measure (RAM) Plan (BWSC106) ☐ b. Phase IV Remedy Implementation Plan (BWSC108)
- ☒ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

3 - 22144

1. I, **William F. Connors**, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.


☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street:

8. City/Town: 9. State: 10. ZIP Code:

11. Telephone: 12. Ext.: 13. FAX:

Date Stamp (DEP USE ONLY:)



APPENDIX B

WELL MONITORING FIELD DATA

Murphy's Waste Oil Facility
252 Salem Street
Woburn, Massachusetts

Date: 3-17-06
CHES Rep: L. Irwin

MU599836

Location	Well Depth	Reference Elevation	Depth to Oil	Depth to Water	Total Thickness	Water Elevation	Purged (gals.)	Comments: Adjacent Wetland Insp. presence/sheen	Regauge
MW-7	12	50.89	6.25	8.05	1.80	44.87	2	Water present in wetland;	8.03
MW-16	12	50.24	5.78	5.80	0.01	44.46	0.5	no sheens in the wetland	5.80
MW-22	8	50.00		5.27		44.73	X	"	X
MW-23	8	49.17		4.63		44.54	X	"	X
MW-24	8	49.30	4.67	4.73	0.06	44.64	0.5	"	4.72
MW-25	8	49.84		5.11		44.73	X	"	X
MW-26	8	50.11		5.33		44.78	X	"	X

1. Well reference elevations determined at top of PVC well rim.
2. Water elevations corrected for oil thickness using a specific gravity of 0.87 for oil.

APPENDIX C



COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street, Boston, Massachusetts 02108

MU5991
PPW 04/24/21

UNIFORM HAZARDOUS
WASTE MANIFEST

M A D 0 6 6 5 8 8 0 0 5

68588

3. Generator's Name and Mailing Address
Murphy's Waste Oil Services Inc
252 Salem Street
Woburn, MA 01801

4. Generator's Phone: 800-622-4845

5. Transporter 1 Company Name
Clean Harbors Env Services Inc

7. Transporter 2 Company Name

9. Designated Facility Name and Mailing Address
Clean Harbors of Braintree Inc
1 Hill Avenue
Braintree, MA, 02184

M A D 0 3 9 3 2 2 2 5 0

M A D 0 5 3 4 5 2 8 3 7

A. State Manifest Document Number
MA U 191518

B. State Gen ID

C. State Trans ID

D. Transporter's Phone (781) 849-1800
E. State Trans ID

F. Transporter's Phone (

G. State Facility's ID NOT REQUIRED

H. Facility's Phone (781) 849-1807

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and Packing Group)
a. HAZARDOUS WASTE, LIQUID, N.O.S., (LEAD, CHROMIUM), 9, NA3082, PG III

12. Containers
No. Type Total Weight Unit Type
001 DF 005 G D004 D00
D008 D00
D008 D01

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)
ERG#171 (L)(E)

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Abbreviated Information
11a: CH100350 D039

EMERGENCY PHONE #: (800) 483-3

16. GENERATOR'S CERTIFICATION: I am a generator of hazardous waste and I hereby certify that the waste is properly labeled, packaged, and shipped in accordance with applicable federal, state, and local laws and regulations. I am a large quantity generator (LQG) and I have selected the appropriate method of manifesting and shipping this waste. I am a small quantity generator (SQG) and I have selected the appropriate method of manifesting and shipping this waste.

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jacqueline Cascarano
Signature: [Signature] Date: 06/12

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Charles Vakartine
Signature: [Signature] Date: 06/12

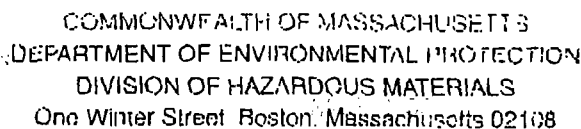
19. Discrepancy Indication Space
Printed/Typed Name: Jacqueline Cascarano
Signature: [Signature] Date: 06/12

20. Facility Owner or Operator Certification of Receipt of Materials
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.
Printed/Typed Name: Keith M. Meryline
Signature: [Signature] Date: 06/12

Form approved OMS No. 2060-0039
EPA Form 8700-22 (Rev. 9-96) Previous Editions are obsolete

COPY>1: FACILITY MAITS TO DESTINATION STATE

PRESS HARD - YOU ARE WRITING THROUGH EIGHT PAGES - USE BALLPOINT PEN
In case of emergency or spill, immediately call the National Response Center (800) 424-8802.



PPW 04/24/2006

USEPA ID No.

Küster, J. Document: 310.

5. Discussion

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M A D 0 6 6 5 8 8 0 0 5

68588

A State Map¹ Document Number

MAU 191518

File ID

SAME

State Trans ID

MA 13365

Transporter's Phone 1784 840 1800

State Trans 11)

Transporter's Page 10

State Facility: D NOT REQUIRED

Feather & Stone 1 781 1810 1807

12	Coatings	Top	045	000
File	Type	Location	Accession No.	
001	DF	005	G	D004 D005 D006 D007 D008 D010

K. Handling Codes for Wastes Listed Above

EMERGENCY PHONE #: (800) 483-3718

Printed Name _____

Signature _____

5.2.2

061206

Transporter 1 Acknowledgment of Receipt of Materials

Signature:

1912

10:61121010

Transporter 2 Acknowledgment of Receipt of Materials

Signatures

175

12.60

Discrepancy Indication Space

Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 13

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

7. 1990 年 1 月 1 日

ADDENDUM No. 12-27-70

Figure 4 shows the effect of the number of iterations on the error of the solution. The error decreases as the number of iterations increases, and the solution converges to the exact solution.

ITY MAILS TO DESTINATION ~~COPY~~ 1-1 FACILITY MAILS TO DESTINATION STATE